

**TE 831: Teaching School Subject Matter with Technology**  
**Spring 2011**  
**Michigan State University**  
**Syllabus**

Instructor: Erik Byker  
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Office Hours: By appointment over Skype or Google Chat

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*I hear and I forget. I see and I remember. I do and I understand.*  
Confucius

*The Gutenberg printing press made it a requirement to learn how to read and write in order to function in modern society; the Internet has made it a requirement that everyone become an author, not necessarily an author in written systems, but a media author.*  
Dr. Yong Zhao

### **Course Rationale and Objectives**

The principal aim of this online course is to develop strategies and methods for teaching school subject matter with technology. The course offers a perspective for integrating educational technology with content and pedagogical practice. Among the topics which the course explores are the National Educational Technology Standards for Teachers (NETS\*T), the *Social Construction of Technology Theory* (known as SCOT), *Technological Pedagogical and Content Knowledge Theory* (known as TPACK), digital literacy, digital citizenship, Universal Design for Learning (UDL), 21<sup>st</sup> Century Skills, digital storytelling, and using Internet-based technologies (like wikis and blogs) for educationally profitable outcomes. The course examines the “great debate” in the field of educational technology. This debate is largely over access to and the affordances and constraints of utilizing educational technology in schools. Yet, the main purpose of the course is to provide a way of thinking about how to integrate technology in school subject matter *and* to offer tools for how to do it. In that vein, one of the primary objectives of this course is to provide authentic learning experiences with using educational technology to teach subject matter. Thus, this course puts a high priority on *doing* as a pathway to understanding.

Specifically, the goals for the course are for students to

- develop a conceptual framework for integrating educational technology in school subject matter;

- examine and become familiar with the issues and terminology related to the field of educational technology;
- discuss and collaborate with classmates in order to foster an online community;
- apply technological knowledge and pedagogical knowledge in constructing an authentic lesson; and
- create digital media to utilize in your teaching, learning, and reflection.

### **Format**

In order to meet these goals, the course follows a unit-based approach with three units total. The first unit, called Conceptual Tools, provides a foundational understanding for teaching with technology. The second unit, called Tech Tools, explores hardware, software, and Internet technologies which have the possibility of enhancing teaching and learning. A focus for this second unit is on the *affordances* and *constraints* of integrating certain technologies in teaching. The third unit, Metacognitive Tools, is more summative and includes a reflection on what was learned throughout the course.

Students will complete each unit before progressing to the next unit. The course is structured so as to keep students on schedule and to prevent a back-up of assignments due at the end of the semester. There will be interaction between each student and the instructor as well as opportunities for students to interact with each other via the discussion tab on the wiki. These discussion boards are asynchronous (that is, students need not be online at the same time, nor are there “online” chats). Rather, on their own schedules, students can respond to others’ comments in order to engage them interactively.

A course wiki is the primary content management system. This wiki is activated using *hypermedia*, a course-based network of links to Internet resources: readings, text, video, audio, online exhibits, and more. The course wiki operates as an anchored but mobile network of resources for learning. The course is intended to contribute to students’ abilities to access, construct, and evaluate “information [or digital] literacy.”

### **Reading and Viewing Materials**

You are not required to purchase any books or materials for this course. I link and/or embed all the course materials on our class wiki. Each course unit contains materials for reading and viewing. These assigned materials are divided into lessons. Every Tuesday I will post the week’s lesson to the class wiki. The “assigned” reading(s) for each week will be linked or uploaded as a PDF. On some weeks you will post responses to the reading(s) on a discussion board located in a tab on the wiki page for that week’s lesson. Discussion posts are due on Sundays by 11:59PM Eastern Time. Alternatively, on other weeks you will get to practice and reflect on using an Internet technology. On weeks where I assign a practicum, the practicum is due on Sunday by 11:59PM Eastern Time.

Occasionally, “suggested” readings are also posted which may or may not be hyperlinked. The “suggested” readings are optional and you will most likely be able to access these optional readings via the MSU Library.

A note on using the MSU Library electronically: As distance learning students, you may not have the opportunity to visit the MSU Library personally. To gain access electronically to the MSU Library, go to the following address: <http://www2.lib.msu.edu/> and follow the directions for re-setting your browser (click on the “Computers” tab at the top of the page and then on “Off Campus Access”). Many graduate and undergraduate students often find that browsing the library journals is a good way to enrich their knowledge of a subject. As you locate the journals and “suggested” articles for each unit, you may wish occasionally to browse a bit to get a sense of what scholarship is like in the several domains of curricular inquiry. Using the MSU Library, and the other online resources in TE 831, will demonstrate how learning via the Internet can be an endlessly interactive activity limited only by your interests (as well, of course, as your time!). Again: Remember to reset your browser if you want access to the MSU Library from an off campus computer.

### **Assignments**

#### *Participation (40% of course grade)*

Participation is evaluated by your discussion board postings and practicum assignments.

The discussion postings (150-300 words) focus on responses to the readings. They are more “open-ended” and are intended to provide a way for you to hear your classmates’ thinking on the viewings and reading(s) for the week. You should connect your posting to the materials in the week’s lesson, but the posting can also have application to your own classroom practice.

The practicum assignments provide the opportunity to try out a variety of technology tools. Practicum assignments are aligned with several lessons in the Tech Tools Unit. Students will post the practicum artifacts to a page on our wiki.

I provide directions for the discussion postings and practicum assignments in each week’s lesson. Discussion postings and/or practicum assignments are due every Sunday by 11:59pm Eastern Time.

#### *TPACK Narrative Survey (5% of course grade-graded Pass/Fail)*

This short assignment is designed as a narrative self-survey. After the lessons on *Technological Pedagogical and Content Knowledge Theory* (TPACK), you will post to the wiki a narrative style response to the following questions: Is TPACK a helpful theory when considering how to teach school subject matter with technology? Explain why or why not. Of the three knowledge categories (Technological Knowledge, Pedagogical Knowledge, and Content Knowledge) which is your strongest? Why? Which is weakest? What knowledge area would you like to continue to develop? Why?

The written response (350-500 words) will be posted as a discussion board post to the class wiki and is due Sunday, January 30, 2011 at 11:59pm Eastern Time.

*Digital Story (20 % of course grade)*

One of the strongest ways to integrate educational technology into school subject matter is with digital stories. Digital storytelling can be utilized with any subject matter and allows users to shape and craft content in powerful ways. Digital storytelling is grounded in creativity. It is a digital literacy which blends images, text, first-person narration, and music. The purpose of this assignment is for you to create your own digital story. While the topic for your digital story is up to you, I would like you to craft a story that you could use as part of a lesson or unit that you are teaching. The digital story should be around three minutes in length. You can use iMovie, PhotoStory 3, and/or Windows Moviemaker for the creation of your digital story. A digital storytelling tutorial and more details regarding this assignment are provided on the course wiki.

You will upload your digital story to teachertube.com or youtube.com in order to embed your digital story onto our wiki. You may choose to use our TE 831 teachertube.com account for this purpose. The account login is: te831msu and the password is: technology. Alternatively, you can use our TE 831 YouTube account. The account login is: te831msu and the password is: technology831.

The digital story is due Sunday, February 27, 2011 at 11:59pm Eastern Time.

*Re-purposing Technology Lesson Plan (25% of course grade)*

Part of knowing is doing. This assignment's purpose is about doing. Most technologies are not designed for educational purposes. What this means is that technologies have to be creatively repurposed in order to make them fulfill their educational potential. This is as true of Microsoft PowerPoint as it is of the iPhone. In this assignment you will identify an Internet technology or digital hardware (cell phone, Flip camera, etc) which you have limited use and experience with.

You will craft a lesson around that piece of technology. The lesson should be connected to content that you would normally teach. Likewise, the lesson plan should be implemented (taught) in your classroom. If you are **not** currently teaching, then you will create a short video or PowerPoint presentation to demonstrate your lesson plan. The write-up for this assignment will include a two-three page lesson plan **and** a reflection paper (550 – 800 words) which connects course readings and themes with your reflections on the actual integration of technology in your lesson plan. You will format both the lesson plan and reflection paper as Word documents and email them both as attachments to [bykereri@msu.edu](mailto:bykereri@msu.edu) by the due date. In addition, you will post the lesson plan to the wiki.

I provide a lesson plan template and further guidelines for the reflection paper on the wiki. The lesson plan and reflection paper is due Sunday, April 10, 2011 at 11:59pm Eastern Time.

### *Voicethread Final Reflection (10% of course grade)*

For the final assignment, I would like you to reflect on what you learned throughout the course. In particular, this assignment should include your thoughts related to the following questions: How did you develop your TPACK throughout this course? What did you discover about the technologies used in the course? What technologies would you still like to investigate? What considerations should a teacher and/or educator give before integrating technology in her or his instruction?

Rather than a written assignment, your reflection will be created using voicethread.com. A VoiceThread is a collaborative, multimedia slide show that holds images, documents, and videos and allows people to navigate pages and leave comments in 5 ways - using voice (with a mic or telephone), text, audio file, or video (via a webcam). More details related to this assignment are located on the course wiki.

The voicethread final reflection is the only assignment which is **not** due on Sunday. Rather, this assignment is due on Tuesday, May 3, 2011 at 11:59pm Eastern Time.

### **Course schedule**

The scope and sequence for the course's units and lessons can be found in the course schedule located on the wiki. The schedule provides an outline of the topics covered and assignment due dates.

### **Communication**

You should check your e-mail frequently for messages from me. While I welcome communication from each of you via email, if you have specific questions about the course, please use the discussion tab at the top of the home page on the wiki. I prefer that you use this forum rather than send direct email as other class members can learn from these dialogues. As you know, often if one person has a question others have the same one.

### **Late policy**

All work must be turned in on time. No deferred grades or incompletes will be given without serious extenuating circumstances.

### **Academic honesty and citations**

I assume that each student is honest and that all course work and examinations represent the student's own work. Violations of the academic integrity policy such as cheating,

plagiarism, selling course assignments or academic fraud are grounds for academic action and/or disciplinary sanction as described in the University's student conduct code.

The principles of truth and honesty are recognized as fundamental to the community of teachers and scholars. This means that all academic work is prepared by the student to whom it is assigned, without unauthorized aid of any kind.

**Incidents of plagiarism are taken very seriously and will be pursued and punishment can result in automatic failure of the course.** Students are warned not to use any text verbatim on any class assignments without quotation marks and source citations. Warning: do not go to a site like Wikipedia, copy and paste, and then “rearrange” words or sentences or replace a few words here and there – that constitutes plagiarism. If you are quoting verbatim, always use quotation marks and cite the page number. (Note, if you use block quotes, APA citation style does not use quotation marks, however, to be on the safe side of academic honesty, for this course, use quotation marks whenever you are citing verbatim). If you have any questions, please ask.

Directions for APA style for references and citations are available at [http://webster.commnet.edu/apa/apa\\_index.htm](http://webster.commnet.edu/apa/apa_index.htm) and many other places on the web. You may also wish to purchase the *Publication Manual of the American Psychological Association* (6th ed. American Psychological Association: New York, 2008).

For University regulations on academic dishonesty and plagiarism, refer to:

<http://www.vps.msu.edu/SpLife/rule32.htm>

<http://www.msu.edu/unit/ombud/plagiarism.html>

### **Course questions or concerns**

If you have concerns or complaints about the course or my conduct of it, I will appreciate your bringing them first to me. Alternatively, or if I am not sufficiently responsive, you could take them to Dr. Randi Stanulis at [randis@msu.edu](mailto:randis@msu.edu), or to the MSU Ombudsman (<https://www.msu.edu/unit/ombud/>).

### **Accommodations for disabilities**

It is Michigan State's policy not to discriminate against qualified students with documented disabilities in its educational programs. If you have a disability-related need for modifications in this course, please contact me and the Resource Center for Persons with Disabilities. I should be notified as early in the semester as possible. For an appointment with a counselor, call 353-9642 (voice) or 355-1293 (TTY). Instructors in the course may request a VISA Form (Verified Individual Student Accommodations Form) from a student requesting services. The OPHS website is at <http://www.rcpd.msu.edu/Home/>.

### General Grading Rubric

Points	4 Point Scale	Description
95-100	4.0	This represents outstanding and exemplary work. The student uses and integrates readings, online discussions, and personal experiences (where appropriate) to inform his/her writing. The student meets all the requirements of the assignment, is deeply thoughtful, and provides many details and examples to support writing. The writing contains no errors in grammar, punctuation, and spelling.
90-94	3.5	This represents high quality work. The student uses many readings, online discussions, and personal experiences (where appropriate) to inform the writing. The student meets all the requirements of the assignment, is thoughtful and provides some details and examples to support ideas. The writing contains very few errors in grammar, punctuation, and spelling.
85-89	3.0	This represents good quality work, performed at the expected level for graduate study. The student uses some readings, online discussions, and personal experiences to inform writing. The student meets all requirements of assignment, attempts to engage with the purposes of the assignments, and provides details and examples to support ideas. The writing contains few errors in grammar, punctuation, and spelling.
80-84	2.5	This represents work below the expected level of quality for the TE program. The student does not include appropriate references to relevant readings, online discussions, and personal experiences to inform writing. The student does not meet all requirements of assignment. The student's writing represents a limited attempt to engage with the purposes of the assignment and discussion posts. There are few details and examples to support writing. The writing includes many errors in grammar, punctuation, and spelling.
75-79	2.0	This represents work significantly below the expected level of quality. The student's writing includes many errors in grammar, punctuation, and spelling. The work shows little evidence of having read course readings or of integrating online discussions. The writing meets few of the assignment's requirements or discussion board expectations. The student demonstrates a minimal attempt to engage with the purposes of the assignment, with no details or examples to support the ideas.